

## I. CLAIM AMENDMENTS

Please amend the claims as indicated in the following listing:

1. (Currently Amended) A computer implemented method for [[an]] a pre-deployment analysis of a plurality of software components of ~~a plurality of an~~ application[[s]] prior to deployment of the ~~plurality of~~ application[[s]], comprising:

using a data structure in a storage that provides, for each of the plurality of software components from the ~~plurality of~~ application[[s]], a software component deployment dependency data, an indication of necessary software components for an operation of each of the plurality of software components being installed, and an indication of incompatibility with a previously installed software component; and

using a computer connected to the storage and a program installed in a memory of the computer, performing the steps of:

determining a first plurality of software components previously installed on a system;

determining a second plurality of software components to be installed on the system;

accessing a third plurality of software component deployment dependency data;

determining a fourth plurality of software components suitable for parallel installation;

determining an order in which the fourth plurality of software components can be grouped for a fifth plurality of parallel installations;

accessing a sixth plurality of metadata from the data structure regarding the second plurality of software components to be installed and accessing a seventh plurality of metadata regarding the first plurality of software components previously installed; and

analyzing the sixth plurality of metadata to determine an eighth plurality of potential conflicts between the second plurality of software components to be installed and the first plurality of software components previously installed on the system;

wherein the pre-deployment analysis allows the second plurality of software components to be installed in parallel and in a sequence of groups; and

wherein an installation time for the plurality of application[[s]] is reduced; ~~and~~

~~wherein the plurality of an applications include an application server.~~

2. (Cancelled).

3. (Previously Presented) The computer implemented method of claim 1, further comprising updating the data structure with an identity of a ninth plurality of recently installed software components.

4. (Previously Presented) The computer implemented method of claim 1, further comprising providing a user with a plurality of options for the eighth plurality of potential conflicts.

5. (Previously Presented) The computer implemented method of claim 4, wherein a first option includes aborting an installation.

6. (Previously Presented) The computer implemented method of claim 4, wherein a second option includes continuing an installation.

7. (Previously Presented) The computer implemented method of claim 6, further including, upon the exercise of the second option, recording an entry in a log indicative of a conflict and of a continuation of installation.

8. (Previously Presented) The computer implemented method of claim 1, further comprising:  
initiating a removal of a software component from the system; and  
identifying a tenth plurality of remaining software components which depend on the software component to be removed.

9. (Currently Amended) The computer implemented method of claim 8, further comprising providing a user with a plurality of options if the tenth plurality of dependent remaining software components [[is]] are identified.

10. (Previously Presented) The computer implemented method of claim 9, wherein a first option includes aborting a removal.

11. (Previously Presented) The computer implemented method of claim 9, wherein a second option includes continuing a removal.

12. (Currently Amended) The computer implemented method of claim 8, further comprising:  
identifying a first software component previously installed on the system which is dependent upon a removed software component; and  
determining an identity of a second software component upon which the first software component depends.

13. (Currently Amended) The computer implemented method of claim 12, further comprising:

installing the second software component upon which the first software component depends; and

creating a dependency link between the first software component and the second software component.

14. – 40. (Cancelled).

41. (New) A computer implemented method of using a semantic model to increase the efficiency of deployment of an application by maximizing parallel installation of application software components, the method comprising:

accessing the semantic model to obtain a dependency information about the application software components;

using the dependency information to group the application software components into sets of software components with like dependency levels, wherein a first set of software components has no dependencies, a second set of software components has dependencies only on the first set of software components, and a third set of software components has dependencies only the first and second sets of software components;

installing the first set of software components in parallel;

responsive to completing installation of the first set of software components, installing the second set of software components in parallel; and

responsive to completing installation of the second set of software components, installing the third set of software components in parallel.